

REMARKS

CLAIM AMENDMENTS

Claims 1, 4, and 5 are amended herein. As indicated in the applicants' previous reply, these amendments introduce formalistic changes in these claims, and limit substituent a) to monomer mixtures in which hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylate is present in at least an equal amount to the combination of (A) and (B).

The examiner has objected to this amendment as raising issues of new matter, based on the specification disclosure at p.6:3-8. That particular disclosure states that

If one or more compounds of the formula A or B are employed in addition to hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylates, the content of hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylates in % by weight is *at least once*, preferably at least twice, particularly preferably at least three times, *as large* as the content of compounds of the formula (A) or (B) in % by weight.

(emphasis supplied.) Applicants respectfully submit that the phrase "is at least once ... as large" in this excerpt is equivalent to the phrase "is at least as large" found in amended claim 1. Further, removal of the word "optionally" indicates that (A) and/or (B) will be "employed in addition to hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylates." As indicated in the cited disclosure, in such an event, the hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylates are to be present in at least (once) as large an amount as the combined compounds of (A) and/or (B). Accordingly, there is no new matter introduced by this amendment.

REJECTION UNDER 35 USC §112, ¶2

The structures of compounds (A) and (B) have been introduced in claim 1, redressing the rejections on this ground. Further, part c) in claim 1 has been amended

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in view of the examiner's rejection.

#### REJECTIONS UNDER 35 USC §102(B)/§103(A)

##### ARMOUR ET AL. (US 3,433,701)

The examiner rejects claims 1-6 and 8 in the alternative as anticipated by or obvious over the disclosure of Armour et al. This rejection is respectfully traversed based on new claim language requiring hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylate and compounds (A) and/or (B) to be present in at least equal amounts. As previously indicated, Armour teaches that hydroxyalkyl esters should be present only in amounts of up to 20% by weight of the copolymer. Accordingly, Armour not only fails to teach this element, but also teaches away from it. Accordingly, the present claims are neither anticipated by nor obvious over the disclosure of Armour.

##### BERGMEISTER ET AL. (US 3,817,896)

The examiner also rejects claims 1-8 in the alternative as anticipated by or obvious over the disclosure of Bergmeister et al. This rejection is respectfully traversed for the reasons set forward above with respect to Armour et al., and for the following additional reasons. Bergmeister teaches copolymerization of ethylene and vinyl acetate where up to 40% of the vinyl acetate present may be replaced with one or more comonomers, including hydroxyalkyl(meth)acrylates. In contrast to Bergmeister, the present invention requires hydroxyalkyl(meth)acrylates to be present in an amount at least equal to that of the compounds (A) and/or (B). The 60:40 ratio of Bergmeister

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does not teach this element of the invention. Furthermore, ethylene is required to be present in Bergmeister in an amount of from 5-50% overall. The present claims do not envision the presence of this comonomer.

#### CONCLUSION

In view of the foregoing amendments and remarks, applicants consider that the rejections of record have been obviated, request that the rejections of record be withdrawn, and respectfully solicit passage of the application to issue.

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Respectfully submitted,  
KEIL & WEINKAUF

A handwritten signature in black ink, appearing to read "David C. Liechty", with a stylized, flowing script.

David C. Liechty  
Reg. No. 48,692

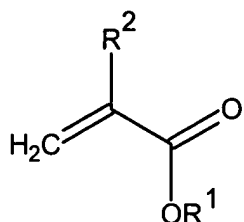
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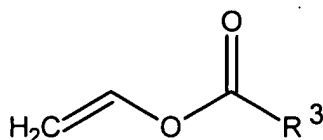
**COPY OF ALL CLAIMS**

1. (currently amended) A water-soluble or water-dispersible copolymer obtained by free-radical polymerization of a monomer mixture consisting essentially of

- a) 80 to 20% by weight of a mixture of hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylate and, ~~optionally~~, one or more compounds of the formula (A) or (B)



(A)



(B)

with  $\text{R}^1 = \text{H}, \text{C}_1\text{-C}_6\text{-alkyl}$ ,

$\text{R}^2 = \text{H}, \text{CH}_3$ ,

$\text{R}^3 = \text{C}_1\text{-C}_{24}\text{-alkyl}$ ,

or mixtures thereof,

wherein the content of hydroxy-C<sub>1</sub>-C<sub>6</sub>-alkyl(meth)acrylate in % by weight in

a) is at least as large as the combined content of the compounds (A) and

(B) in % by weight.

in the presence of

- b) 20 to 80% by weight of polyvinyl alcohol (PVA) and
- c) optionally 0 to 20% by weight of other polymerizable compounds (C), ~~at least one other polymerizable monomer selected from the group~~

consisting of acrylic and methacrylic acids, are crotonic acid, mono( $C_1$ - $C_8$ )-alkyl maleates, maleic acid, fumaric acid, itaconic acid, (meth)acrylonitrile, ethylenically unsaturated di( $C_1$ - $C_{22}$ )-alkyl (di( $C_1$ - $C_{22}$ )-alkyl dicarboxylates, ethylenically unsaturated sulfonic acids or sulfonic acid derivatives, acyclic N-vinylcarboxamides and N-vinylactams.

2. (original) A water-soluble or water-dispersible copolymer as claimed in claim 1, wherein the free-radical polymerization is an emulsion polymerization.
3. (previously presented) A water-soluble or water-dispersible copolymer as claimed in claim 1, wherein hydroxyethyl methacrylate is employed as hydroxy- $C_1$ - $C_6$ -alkyl (meth)acrylate.
4. (currently amended) A water-soluble or water-dispersible copolymer as claimed in claim 1, wherein the compounds of the formula (A) are selected from the group consisting of methyl methacrylate, ethyl methyl acrylate, methyl acrylate, and or mixtures thereof.
5. (currently amended) A water-soluble or water-dispersible copolymer as claimed in claim 1, wherein the compounds of the formula (B) are selected from the group consisting of  $C_3$ - $C_{24}$ -vinyl esters.

6. (previously presented) A process for preparing water-soluble or water-dispersible copolymers as claimed in claim 1 by free-radical polymerization in an aqueous or nonaqueous but water-miscible solvent or in mixed nonaqueous/aqueous solvents.
7. (original) A process as claimed in claim 6, wherein the polymerization takes place in the presence of from 30 to 55% by weight of polyvinyl alcohol.
8. (previously presented) A pharmaceutical dosage form comprising at least one water-soluble or water-dispersible copolymer as claimed in claim 1 as coating agent, binder and/or film-forming excipient.
9. (canceled)